

IN THE CLAIMS:

Please cancel the amendments made to the claims in the applicant's communication of 06 July 2006 and amend the claims as follows:

Claims 20-30 (canceled)

Claim 31 (currently amended): A calcination plant for particulate material comprising:
means defining a calcination zone, said defining means including a peripheral wall which peripherally surrounds said calcination zone; [and]

means for generating a calcination temperature of at least 1700°F in said calcination zone; and

means for transporting particulate material through at least part of said calcination zone along a substantially cyclonic flow path, said peripheral wall being substantially free [of ceramic] from refractory insulation along said part of said calcination zone.

Claim 32 (previously presented): The plant of claim 31, further comprising means for adjusting the temperature in said calcination zone by varying the rate of admission of particulate material into said calcination zone.

Claim 33 (currently amended): The plant of claim 31, wherein said peripheral wall is substantially free [of ceramic] from refractory insulation along substantially all of said calcination zone.

Claim 34 (previously presented): The plant of claim 31, wherein said transporting means comprises means for introducing particulate material into said calcination zone substantially tangentially of said calcination zone.

Claim 35 (currently amended): The plant of claim 31, [further comprising] wherein said generating means comprises means for heating the interior of said cyclonic flow path.

Claim 36 (previously presented): The plant of claim 35, wherein said heating means comprises a burner for directing a flame into said interior of said cyclonic flow path.

STATUS OF CLAIMS AND SUPPORT FOR CLAIM CHANGES:

Claims 1-19 of Patent No. 5,975,852 have been canceled as have the added claims 20-30. The remaining added claims 31-36 are pending.

The currently amended claims recite means for generating a calcination temperature of at least 1700°F in the calcination zone. This is supported by the following disclosure in column 5, lines 16-22 of Patent No. 5,975,852:

“In order for the decomposition reaction of limestone to take place, a reactor temperature of at least 1,700°F. must be maintained, possibly avoiding temperatures higher than 2,450° F. to prevent sintering. The heat required to reach and maintain these temperatures is provided first by the pre-heating steps and then by the gas burner in the reaction zone.”

The currently amended claims further specify that at least part of the peripheral wall of the calcination zone is substantially free of refractory insulation. This is supported by the following statement in column 6, lines 19-27 of Patent No. 5,975,852:

“Thus, the present invention provides a self-contained, energy-efficient system for calcining particulate feed material in a continuous operation that features high-temperature operating units (calcining reactor, cyclone, heat exchangers) located inside the raw material silo for insulation and preheating, which eliminates the need for refractory insulation, and a high level of energy recovery from the heat exchangers used to preheat the feed and the conveying air to the silo.”